

IN THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the instant application.

Listing of Claims:

1. (Currently Amended) A footwear insole, said insole comprising:

a compressible base;

a plurality of compressible protrusions protruding in a direction away from said base and for protruding away from a wearer's foot; and

means for interconnecting said compressible protrusions, said interconnecting means comprising said compressible base and combining with said compressible protrusions to provide for strict compression of said compressible protrusions in response to a compressive force, whereby a column-buckling effect is avoided;

a first group of said protrusions being adapted to maximally absorb a compressive force along a first primary force vector, the first primary force vector being essentially parallel to a longitudinal axis of said insole; and

a second group of said protrusions being adapted to maximally absorb a compressive force along a second primary

force vector, the second primary force vector being oriented at an acute angle, in a forward direction, with respect to the first primary force vector;

said first group of protrusions comprising at least a first genre of protrusions each having a longitudinal dimension extending along a planar dimension of said insole and a transverse dimension defined in perpendicular with respect to the longitudinal dimension along a planar dimension of said insole, the longitudinal dimension being greater than the transverse dimension, the longitudinal dimension being oriented essentially in parallel with respect to the first primary force vector;

said second group of protrusions comprising at least a second genre of protrusions each having a longitudinal dimension extending along a planar dimension of said insole and a transverse dimension defined in perpendicular with respect to the longitudinal dimension along a planar dimension of said insole, the longitudinal dimension being greater than the transverse dimension, the longitudinal dimension being oriented essentially in parallel with respect to the second primary force vector;

said first genre of protrusions and said second genre of protrusions being coincident in at least one region of said

insole as defined along a direction transverse to a longitudinal axis of said insole.

2. **(Previously Presented)** The insole according to Claim 1, wherein said compressible protrusions comprise compressible material and present varying thicknesses, wherein:

said protrusions comprise a first set of protrusions and a second set of protrusions;

said first set of protrusions present at least one thickness corresponding to a first stage of compression in response to a compressive force and;

said second set of protrusions present at least one thickness corresponding to a second stage of compression in response to a compressive force, the second stage of compression initiating subsequent to initiation of the first stage of compression.

3. **(Previously Presented)** The insole according to Claim 2, wherein the first stage of compression corresponds to a first spring force which acts in response to a compressive force and the second stage of compression corresponds to a second spring force which acts in response to a compressive force, the second spring force including the first spring force and an augmenting spring force.

4. **(Previously Presented)** The insole according to Claim 3, wherein said interconnecting means presents at least one thickness corresponding to a third stage of compression in response to a compressive force, the third stage of compression initiating subsequent to initiation of the second stage of compression.

5. **(Previously Presented)** The insole according to Claim 4, wherein the third stage of compression corresponds to a third spring force which acts in response to a compressive force, the third spring force including the second spring force and a second augmenting spring force.

6. **(Previously Presented)** The insole according to Claim 5, wherein:

said compressible base has the at least one thickness corresponding to the third stage of compression.

7. **(Original)** The insole according to Claim 6, wherein said insole comprises a forward impact region and a rearward impact region, each of said forward and rearward impact regions including a plurality of said protrusions, the plurality of protrusions in said rearward impact region presenting generally greater thicknesses than corresponding protrusions in said forward impact region.

8. **(Cancelled)**

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Currently Amended) The insole according to Claim 12 1, wherein a third group of said protrusions is adapted to maximally absorb a compressive force along a third primary force vector, the third primary force vector being oriented at an acute angle, in a forward direction, with respect to the first primary force vector;

said third group of protrusions comprising at least a third genre of protrusions each having a longitudinal dimension extending along a planar dimension of said insole and a transverse dimension defined in perpendicular with respect to the longitudinal dimension along a planar dimension of said insole, the longitudinal dimension being greater than the transverse dimension, the longitudinal dimension being oriented essentially in parallel with respect to the third primary force vector.

14. (Currently Amended) The insole according to Claim 13, wherein:

~~the first primary force vector is essentially parallel to a longitudinal axis of said insole,~~

the second primary force vector is oriented at an acute angle, and in a leftward and forward direction, with respect to the first primary force vector; and

the third primary force vector is oriented at an acute angle, and in a rightward and forward direction, with respect to the first primary force vector.

15. **(Original)** The insole according to Claim 14, wherein the second primary force vector is oriented at an angle of between about 30 degrees and about 45 degrees, and in a leftward and forward direction, with respect to the first primary force vector.

16. **(Original)** The insole according to Claim 14, wherein the third primary force vector is oriented at an angle of between about 30 degrees and about 45 degrees, and in a rightward and forward direction, with respect to the first primary force vector.

17. **(Original)** The insole according to Claim 13, wherein:

said insole comprises a forward impact region and a rearward impact region; and

said forward impact region comprises a plurality of said first group of protrusions, a plurality of said second group of protrusions and a plurality of said third group of protrusions.

18. **(Original)** The insole according to Claim 1, wherein said insole is formed from a gel material.

19. **(Original)** The insole according to Claim 18, wherein said gel material is styrene-based.

20. **(Original)** The insole according to Claim 18, wherein said gel material is polyurethane-based.

21. **(Original)** The insole according to Claim 18, wherein said gel material has a durometer measurement of between about 40 Shore 00 and about 65 Shore 00.

22. **(Original)** The insole according to Claim 21, wherein said gel material has a durometer measurement of about 55 Shore 00.

23. **(Original)** The insole according to Claim 1, wherein said protrusions are formed from different materials with different durometer measurements.

24. **(Original)** The insole according to Claim 1, further comprising an arch stiffener.

25. **(Original)** The insole according to Claim 24, wherein a remainder of said insole is formed from at least one material that is less stiff than said arch stiffener.

26. **(Original)** The insole according to Claim 1, wherein said insole is an element that is freely incorporable into footwear and freely removable therefrom.

27. **(Original)** The insole according to Claim 1, wherein said insole is sized to accommodate solely the heel area of a foot.

28. **(Original)** The insole according to Claim 1, wherein said insole is sized to accommodate solely the metatarsal area of a foot.

29. **(Previously Presented)** The insole according to Claim 1, wherein said insole is adapted to be disposed between a wearer's foot and a footwear midsole.

30. **(Previously Presented)** A footwear insole, said insole comprising:

a compressible base;

a plurality of compressible protrusions protruding in a direction away from said compressible base and for protruding away from a wearer's foot; and

means for interconnecting said compressible protrusions, said interconnecting means comprising said compressible base and combining with said compressible protrusions to provide for strict compression of said compressible protrusions in response to a compressive force, whereby a column-buckling effect is avoided;

said compressible protrusions comprising compressible material and presenting varying thicknesses, wherein:

said protrusions comprise a first set of protrusions and a second set of protrusions;

said first set of protrusions present at least one thickness corresponding to a first stage of compression in response to a compressive force and;

said second set of protrusions present at least one thickness corresponding to a second stage of compression in response to a compressive force, the second stage of compression initiating subsequent to initiation of the first stage of compression.

a first group of said protrusions being adapted to maximally absorb a compressive force along a first primary force vector, the first primary force vector being essentially parallel to a longitudinal axis of said insole;

a second group of said protrusions being adapted to maximally absorb a compressive force along a second primary force vector, the second primary force vector being oriented at an acute angle, in a forward direction, with respect to the first primary force vector;

said first group of protrusions comprising at least a first genre of protrusions each having a longitudinal dimension extending along a planar dimension of said insole and a transverse dimension defined in perpendicular with respect to the longitudinal dimension along a planar dimension of said insole, the longitudinal dimension being greater than the transverse dimension, the longitudinal dimension being oriented essentially in parallel with respect to the first primary force vector;

said second group of protrusions comprising at least a second genre of protrusions each having a longitudinal dimension extending along a planar dimension of said insole and a transverse dimension defined in perpendicular with respect to the longitudinal dimension along a planar dimension of said insole, the longitudinal dimension being greater than the transverse dimension, the longitudinal dimension being oriented essentially in parallel with respect to the second primary force vector;

said first genre of protrusions and said second genre of protrusions being coincident in at least one region of said insole as defined along a direction transverse to a longitudinal axis of said insole.

31. **(Previously Presented)** The insole according to Claim 30, wherein the first stage of compression corresponds to a first spring force which acts in response to a compressive force and the second stage of compression corresponds to a second spring force which acts in response to a compressive force, the second spring force including the first spring force and an augmenting spring force.

32. **(Previously Presented)** The insole according to Claim 31, wherein said interconnecting means presents at least one thickness corresponding to a third stage of compression in response to a compressive force, the third stage of compression initiating subsequent to initiation of the second stage of compression.

33. **(Previously Presented)** The insole according to Claim 32, wherein the third stage of compression corresponds to a third spring force which acts in response to a compressive force, the third spring force including the second spring force and a second augmenting spring force.

34. **(Currently Amended)** The insole according to Claim 30, wherein a third group of said protrusions is adapted to

maximally absorb a compressive force along a third primary force vector, the third primary force vector being oriented at an acute angle, in a forward direction, with respect to the first primary force vector;

said third group of protrusions comprising at least a third genre of protrusions each having a longitudinal dimension extending along a planar dimension of said insole and a transverse dimension defined in perpendicular with respect to the longitudinal dimension along a planar dimension of said insole, the longitudinal dimension being greater than the transverse dimension, the longitudinal dimension being oriented essentially in parallel with respect to the third primary force vector.

35. **(Currently Amended)** The insole according to Claim 34, wherein:

~~the first primary force vector is essentially parallel to a longitudinal axis of said insole;~~

the second primary force vector is oriented at an acute angle, and in a leftward and forward direction, with respect to the first primary force vector; and

the third primary force vector is oriented at an acute angle, and in a rightward and forward direction, with respect to the first primary force vector.

36. (Previously Presented) The insole according to Claim 34, wherein:

said insole comprises a forward impact region and a rearward impact region; and

said forward impact region comprises a plurality of said first group of protrusions, a plurality of said second group of protrusions and a plurality of said third group of protrusions.